

Session No. 8

Course Title: Social Dimensions of Disaster, 2nd edition

Session 8: Sources of Disaster Myths

1 hr.

Objectives:

- 8.1 Describe three disaster myths that reflect a hazards research perspective
- 8.2 Identify four sources of disaster myths
- 8.3 Summarize research findings documenting how movies perpetuate disaster myths
- 8.4 Describe research findings documenting how the print media reports disaster myths
- 8.5 Explain why knowledge of the sources of disaster myths is important to emergency managers.

Scope:

This session introduces students to elements of the disaster mythology documented by hazards researchers. Sources of disaster myths and the processes of perpetuation are assessed. Implications for emergency managers are explained.

Readings:

Student Reading:

Mitchell, Jerry T., Deborah S.K. Thomas, Arleen A. Hill, and Susan C. Cutter. 2000. "Catastrophe in Reel Life versus Real Life: Perpetuating Disaster Myth Through Hollywood Films." *International Journal of Mass Emergencies and Disasters* 18:383-402.

Professor Readings:

Fischer, Henry W., III. 1998. *Response To Disaster: Fact versus Fiction and It's Perpetuation*. Lanham, Maryland: University Press of America, Inc. (Chapter 3 only: "Why We Believe the Disaster Mythology," pp. 37-87).

Bahk, C. Mo and Kurt Nevwirth. 2000. "Impact of Movie Depictions of Volcanic Disaster on Risk Perception and Judgements." *International Journal of Mass Emergencies and Disasters* 18:63-84.

Background References:

Martinet, Michael E. 2002. "The Pied Pipers of Paranoia." *IAEM Bulletin* 19 (October):6.

Wenger, Dennis E. and Barbara Friedman. 1986. "Local and National Media Coverage of Disaster: A Content Analysis of the Print Media's Treatment of Disaster Myths." *International Journal of Mass Emergencies and Disasters* 4:27-50.

Quarantelli, E.L. 1985. "Realities and Mythologies in Disaster Films." *Communications* 1:31-44.

Goltz, James D. 1984. "Are the News Media Responsible for the Disaster Myths? A Content Analysis of Emergency Response Imagery." *International Journal of Mass Emergencies and Disasters* 2:345:368.

General Requirements:

Overheads 8-1 through 8-8 appended.

Student Handout 8-1.

See individual requirements for each objective.

Objective 8.1 Describe three disaster myths that reflect a hazards research perspective.

Requirements:

Start this session with the student exercise and proceed with lecture material specified below.

Use Overheads 8-1 and 8-2.

Remarks:

I. Introduction

A. Remind students of exercise procedures.

1. **Divide** class into four groups.
2. **Appoint** student roles for each group.
 - a. Chair.
 - b. Reporter.
 - c. Timer.
3. **Announce** time limit: 5 minutes.

B. **Display** Overhead 8-1; “Workshop Tasks”.

C. **Review** tasks.

1. Group 1 – Identify which disaster myths were most frequently documented by hazards researchers. Which were found less frequently?
2. Group 2 – Describe four sources of disaster myths.
3. Group 3 – Which aspects of Quarantelli’s (1985) analysis of disaster myths were confirmed in the study by Mitchell et al. (2000)?
4. Group 4 – Why is it important for emergency managers to understand the sources of disaster myths and the processes of perpetuation?

D. **Start** discussion.

E. **Stop** discussion.

II. Disaster Myths: Hazards Research Perspective.

A. Group 1 report (2 minutes).

B. **Display** Overhead 8-2; “Disaster Myths: Hazards Researchers.”

C. **Elaborate** as necessary.

1. **Sample** (Mitchell et al. 2000).
 - a. Study included 11 films, e.g., *Backdraft*, *Twister*, *Volcano*.
 - b. Exclusions included war, terrorism, science fiction, etc.

- c. **Refer** students to listing in Table 3 (p. 389).
- 2. **Most frequent** myths.
 - a. Refer students to Table 4 (p. 391).
 - b. High energy event, nonsignificant in global terms (myth 1) (8 films).
 - c. Unpredictability and human powerlessness (myth 4) (8 films).
- 3. **Least frequent** myths.
 - a. Refer students to Table 4 (p. 391).
 - b. Use of death tolls (myth 3) (6 films).
 - c. Technocratic approach (myth 5) (6 films).

Supplemental Considerations:

This exercise elaborates on the prior session (i.e., No. 7) and reinforces the differences in **theoretical perspectives** that currently reflect social research related to emergency management. All of the authors' current positions are in **geography** or related departments. Consequently, their work reflects the hazards as opposed to a disaster focus. The types of myths observed **contrast** sharply in content to those documented by Quarantelli and subsequent researchers reflecting and extending the research tradition that originated with the **NORC studies** at the University of Chicago, e.g., Fritz (1961). Remind students of the **evolution** of social research on disasters and hazards that comprised Session No. 3 ("History of Sociological Research on Disasters").

Objective 8.2 Identify four sources of disaster myths.

Requirements:

Use Overhead 8-3.

Use Student Handout 8-1.

Remarks:

- I. Sources of disaster myths.
 - A. Group 2 Report (2 minutes).

B. Elaboration.

1. **Peers**, e.g., people share disaster experiences (see below).
2. **Organizational** executives, e.g., first responders share experiences.
3. **Movies**, e.g., examples from Mitchell et al. (2000) study.
4. **Media**, newspapers and news magazines (see below).
5. **Books** (see below).

II. Disaster experience.

A. Distribute Student Handout 8-1; “Myth Perpetuation Studies.”

1. **Emphasize** Handout as note taking device and future resource.
2. **Refer** students to citation for Rossi, et al., 1983 study (note taking tool).
3. **Ask** students: “On average, how often do households within the U.S.A. actually experience disasters?”

B. Display Overhead 8-3; “Sources of Disaster Myths: Disaster Experience.”

1. Some people learn of disaster myths through conversations with **peers**.
2. **Relatively few** people actually experience disaster first hand.
3. **Summarize** key points in Rossi et al. (1983) study.
 - a. Only national study published.
 - b. Sample: random selection.
 - c. Time frame: a decade (1970-1980).
4. **Disaster experience rates**.
 - a. Rates are per 1,000 households.
 - b. **Most frequent** – tornadoes and windstorms – 10.0.
 - c. **Least frequent** – earthquakes and severe tremors – 1.8.

d. **Any four** natural hazards – 18.7.

5. **Conclusion:** what most people learn about disasters from peers reflects second hand information, not actual experience.

Supplemental Considerations:

There are **three messages** in this section. **First**, there are multiple sources of disaster myths. **Second**, most households never experience disaster. **Third**, because of one and two, what most people learn from their peers about disaster reflects second hand information.

Objective 8.3 Summarize research findings documenting how movies perpetuate disaster myths.

Requirements:

Use Overhead 8-4.

Student Handout 8-1.

Remarks:

- I. Quarantelli (1985) study.
 - A. **Refer** to Student Handout 8-1; “Myth Perpetuation Studies (note taking tool)”.
 - B. **Display** Overhead 8-4; “Sources of Disaster Myths: Movies.”
 - C. **Review** key items listed.
 - 1. **Method:** content analysis.
 - 2. **Sample:**
 - a. 36 disaster films.
 - b. **Examples:**
 - 1) *Earthquake*.
 - 2) *Hurricane* (1979 version).
 - 3) *The Last Days of Pompeii*.

4) *The Poseidon Adventure*.

5) *Swarm*.

6) *The Towering Inferno*.

3. Findings:

- a. Movies perpetuate disaster myths.
- b. Most common myth: anti-social behavior.
- c. Disaster agents depicted are uncommon or near impossible.
- d. Focus on human weaknesses.
- e. Focus on evil persons.
- f. Ignore complex mix of social factors, conditions, and processes that put populations at risk.

II. Mitchell et al. study (2000).

A. **Remind** students of Group 1 report conclusions.

B. Group 3 report (2 minutes).

C. **Elaboration:**

1. **Pre-impact Phase** (p. 397).

- a. Focus of most film time.
- b. Disaster agents.
 - 1) Probable to improbable.
 - 2) Chronic threats ignored.
- c. Social aspects.
 - 1) Threat denial.
 - 2) Lone hero.
 - 3) Ambiguous warnings.

2. **Trans-Impact Phase** (p. 398).

- a. Damage portrayed unequal to death toll.
- b. People out run smoke, explosions, etc.
- c. Usually brief, some exceptions, e.g., *Firestorm*.
- d. Despite diverse victim populations, white middle-class is focus.
- e. Class conflict.

3. **Post-Impact Phase** (p. 399).

- a. Short or non-existent.
- b. Continuity of life without change.

4. **Conclusion** (p. 400).

- a. Quarantelli research confirmed.
- b. “Disaster films do not reflect disaster reality.” (p. 400).

III. Bahk and Neuwirth Study (2000).

A. **Method:** experiment.

1. **Sample:** 162 college students (assigned to one treatment).

2. **Experimental** treatments (video clips).

- a. Movie clip – *Volcano*.
- b. Documentary – National Geographic produced *Volcano*.
- c. Control clip – gardening.

3. **Questionnaire** to measure.

- a. Perception of victimization risk.
- b. Victimization apprehension.
- c. Problem seriousness.

d. Risk locus of control.

B. Findings.

1. Movie and documentary watchers: higher level of fear and worry about being victimized by volcano (p. 63).
2. Movie watchers: perceived realism of presentation and role attractiveness of characters increased level of fear and induced higher estimates of volcanic risk victimization (p. 63).
3. “. . . increased role attractiveness was associated with greater levels of external risk locus of control.” (p. 63).

Supplemental Considerations:

This section permits a **contrast** in the substantive focus of a disaster researcher like Quarantelli and hazard researchers like the Mitchell team. It also demonstrates the value of **continuity** in research and the value of **confirmation** of other research findings, i.e., Bahk and Neuwirth 2000.

Objective 8.4 Describe research findings documenting how the print media report disaster myths.

Requirements:

Use Overheads 8-5 and 8-6.

Student Handout 8-1.

Remarks:

- I. Disaster Specific Study.
 - A. **Refer** students to Student Handout 8-1 and note study citation, i.e., Wenger and Friedman 1986.
 - B. **Display** Overhead 8-5; “Sources of Disaster Myths: Print Media (Disaster Specific)”.
 - C. **Review** key points listed.
 1. **Method:** content analysis.

2. **Sample:**

- a. n = 113 news stories.
- b. Hurricane Alicia; August, 1983.
- c. Media analyzed:
 - 1) One local newspaper: *Houston Post* (August 16 – 31, 1983).
 - 2) Three national newspapers: *New York Times*, *Washington Post*, *U.S.A. Today*.
 - 3) Two news magazines, *Time* and *Newsweek*.

3. **Findings.**

- a. 71% did **not** contain disaster myths.
- b. Most frequent myths.
 - 1) Looting – 11%.
 - 2) Increased crime – 10%.
 - 3) Mass evacuations – 8%.
 - 4) Others.
- c. Both national magazines and national newspapers reflected some elements of myth.

II. Multi-Disaster Study.

- A. **Refer** students to Student Handout 8-1 and note study citation, i.e., Fischer 1998.
- B. **Display** Overhead 8-6; “Sources of Disaster Myths: Print Media (Multi-Disaster”.
- C. **Review** key points listed.
 - 1. Method: content analysis.
 - 2. Sample:

- a. n = 80 news stories.
- b. Time period: 1945 – 1985.
- c. One news magazine, largest circulation in U.S.A.

3. Findings.

- a. 50% had at least one myth.
- b. Some articles had as many as 12 myths.
- c. Most frequent myths.
 - 1) Mass evacuations – 24%.
 - 2) Looting – 11%.
 - 3) Panic – 10%.
 - 4) Other.

III. Goltz Study (1984).

A. **Method:** content analysis.

B. **Sample.**

- 1. Four earthquake disasters.
 - a. Alaska, 1964.
 - b. Imperial Valley, California, 1979.
 - c. Algeria, 1980.
 - d. Italy, 1980.
- 2. Two newspapers.
 - a. *Los Angeles Times* (90 articles).
 - b. *Santa Monica Evening Outlook* (56 articles).

C. **Findings.**

1. Domestic event coverage contained few myths.
2. Foreign event coverage contained more myths.

IV. Books.

A. About ten percent of the public believes that they learn about disasters from books (based on Wenger et al. 1980, p. 56).

B. Example study: Wenger et al. 1980.

1. Survey item: "From what sources have you obtained the greatest amount of information concerning natural disasters?" (p. 56).
2. Results: percentage selecting "books" varied by community.
 - a. 11% - highest rate.
 - b. 4% - lowest rate.

C. Example book: *The Complete Story of the Galveston Horror*.

1. **Editor:** John Coulter.
2. **Publication date:** 1900.
3. **Myth reinforcing statements** (picture captions; no page numbers).
 - a. "Shooting vandals at work on the dead bodies in Galveston after the disaster."
 - b. "Survivors insane over the loss of homes and dear ones."
 - c. "Vandals robbing the dead."
 - d. "Survivors, nearly starved, ransacking a grocery store for food."

Supplemental Considerations:

For some students these ideas will be novel. Print media are accepted as reliable and accurate presenters rather than perpetrators of myth. Discussion and debate of the research conclusions plus instructor selected media examples could reinforce the messages of this section.

Objective 8.5 Explain why knowledge of the sources of disaster myths is important to emergency managers.

Requirements:

Overhead 8-7 and 8-8.

Remarks:

- I. Group 4 report (2 minutes).
- II. Emergency Management Implications.
 - A. **Display** Overhead 8-7; “Emergency Management Implications.”
 - B. **Relate** points listed to Group 4 report and illustrate as necessary.
 1. Assess personal belief.
 2. Sensitivity to future material.
 3. Understand public response.
 4. Understand agency executives.
 5. Research enhances emergency management.
 - C. Wenger et al. Study (1980).
 1. **Method:** survey of emergency services executives (n = 55) and public (n = 907) (discussed in Session No. 7; “Disaster Mythology”).
 2. **Findings:**
 - a. Executives indicating belief in myth.
 - 1) Martial law – 85%.
 - 2) Looting – 76%.
 - 3) Evacuation – 60%.
 - 4) Shock – 53%.
 - b. Citizens indicating belief in myth.

1) Martial law – 81%.

2) Looting – 82%.

3) Evacuation – 80%.

4) Shock – 67%.

3. Implication: emergency services executives are **less likely** than public to believe in disaster mythology, but rates are high.

III. Practitioner Viewpoint.

A. **Author:** Michael E. Martinet, CEM (2002).

B. **Position:** Office of Disaster Management, Area G, Redondo Beach, California.

C. **Editorial comment:** *IAEM Bulletin* (October, 2002).

D. **Quote Number One:**

“When will people finally realize that paranoia is one of the four basic food groups of the media, some planners and consultants with extraordinarily vested self-interests. . . .

Despite all of the research – both recent and old – which shows that people seldom panic, even in some very dire situations, the ‘awesome specter’ of people running amuck in the streets still sells newspapers and send chills up the spines of some emergency planners who are not familiar with the research on panic, or more properly, the lack of panic.” (p. 6).

E. **Quote Number Two:** “In the video reporting of the WTC attacks, we saw hundreds, even thousands, of people running madly down the street to escape the carnage. That is not panic; that is rational self-preservation. Panic would keep one running, even when there was no longer a credible threat to one’s personal safety.” (p. 6).

IV. Session Summary.

A. **Display** Overhead 8-8; “Session Summary.”

B. **Review** points listed to link components of session into an **integrated** whole.

Supplemental Considerations:

This section could be expanded through student discussion of **illustrations** of each of the **implications** listed. Additional examples of myths in media reports could reinforce the **messages** of this session.

Course Developer References:

- I. Bahk, C. Mo and Kurt Neuwirth. 2000. "Impact of Movie Depictions of Volcanic Disaster on Risk Perception and Judgements." *International Journal of Mass Emergencies and Disasters* 18:63-84.
- II. Coulter, John. 1900. *The Complete Story of the Galveston Horror*. (Place of publication not specified): United Publishers of America.
- III. Fischer, Henry W., III. 1998. *Response to Disaster: Fact versus Fiction and It's Perpetuation*. Lanham, Maryland: University Press of America, Inc.
- IV. Fritz, Charles E. 1961. "Disasters." Pp. 651-694 in *Contemporary Social Problems*, Robert K. Merton and Robert A. Nisbet (eds.). New York: Harcourt.
- V. Goltz, James D. 1984. "Are the News Media Responsible for the Disaster Myths? A Content Analysis of Emergency Response Imagery." *International Journal of Mass Emergencies and Disasters* 2:345-368.
- VI. Martinet, Michael E. 2002. "The Pied Pipers of Paranoia." *IAEM Bulletin* 19 (October):6.
- VII. Mitchell Jerry T., Deborah S.K. Thomas, Arleen A. Hill, and Susan G. Cutter. 2000. "Catastrophe in Reel Life versus Real Life: Perpetuating Disaster Myth through Hollywood Films." *International Journal of Mass Emergencies and Disasters* 18:383-402.
- VIII. Quarantelli, E.L. 1985. "Realities and Mythologies in Disaster Films." *Communications* 11:31-44.
- IX. Rossi, Peter H., James D. Wright, Eleanor Weber-Burdin and Joseph Pereira. 1983. *Victims of the Environment*. New York: Plenum Press.
- X. Wenger, Dennis E., Thomas F. James, and Charles E. Faupel. 1980. *Disaster Beliefs and Emergency Planning*. Newark, Delaware: Disaster Research Project, University of Delaware.
- XI. Wenger, Dennis E. and Barbara Friedman. 1986. "Local and National Media Coverage of Disaster: A Content Analysis of the Print Media's Treatment of Disaster Myths." *International Journal of Mass Emergencies and Disasters* 4:27-50.

